

NEWS 7 MAY 21 CA/Capplus enhanced with additional kind codes for German patents  
 NEWS 8 MAY 22 CA/Capplus enhanced with IPC reclassification in Japanese patents  
 NEWS 9 JUN 27 CA/Capplus enhanced with pre-1967 CAS Registry Numbers  
 NEWS 10 JUN 29 STN Viewer now available  
 NEWS 11 JUN 29 STN Express, Version 8.2, now available  
 NEWS 12 JUL 02 LEMBASE coverage updated  
 NEWS 13 JUL 02 LMEDLINE coverage updated  
 NEWS 14 JUL 02 SCISEARCH enhanced with complete author names  
 NEWS 15 JUL 02 CHEMCATS accession numbers revised  
 NEWS 16 JUL 02 CA/Capplus enhanced with utility model patents from China  
 NEWS 17 JUL 16 Capplus enhanced with French and German abstracts  
 NEWS 18 JUL 18 CA/Capplus patent coverage enhanced  
 NEWS 19 JUL 26 USPATFULL/USPAT2 enhanced with IPC reclassification  
 NEWS 20 JUL 30 USGENE now available on STN  
 NEWS 21 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
 NEWS 22 AUG 06 BEILSTEIN updated with new compounds  
 NEWS 23 AUG 06 FSTA enhanced with new thesaurus edition

NEWS EXPRESS 29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,  
 CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
 AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.

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FILE 'HOME' ENTERED AT 09:42:06 ON 08 AUG 2007

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 8 Aug 2007 VOL 147 ISS 7  
 FILE LAST UPDATED: 7 Aug 2007 (20070807/ED)

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=> (coating or coated) with sterol  
(COATING IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s (coating or coated) with sterol  
MISSING OPERATOR COATED) WITH

The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> s coating with sterol  
802861 COATING  
373955 COATINGS  
865186 COATING  
          (COATING OR COATINGS)  
25171 STEROL  
24579 STEROLS  
36705 STEROL  
          (STEROL OR STEROLS)  
L1          3 COATING WITH STEROL  
          (COATING(1W) STEROL)

=> s coated with sterol  
517806 COATED  
2 COATEDS  
517808 COATED  
          (COATED OR COATEDS)  
25171 STEROL  
24579 STEROLS  
36705 STEROL  
          (STEROL OR STEROLS)  
L2          3 COATED WITH STEROL  
          (COATED(1W) STEROL)

=> s L1 and L2  
L3          1 L1 AND L2

=> d scan

L3      1 ANSWERS      CAPLUS   COPYRIGHT 2007 ACS on STN  
IC      ICM   A61K031-56  
ICS      A23L001-30; A23P001-02; A61J003-02; A61J003-10; A61K009-14;  
          A61K009-20; A61K031-575; A61K047-36; A61K047-42; A61P001-00;  
          A61P003-06; A61P013-08; A61P035-00  
CC      17-14 (Food and Feed Chemistry)  
          Section cross-reference(s): 63  
TI      Easily water-dispersible powders containing sterols and their compressed  
          moldings, manufacture, and food use  
ST      gum arabic phytosterol powder food; sugar protein sterol tablet food;  
          coating sterol emulsion drying sugar protein  
IT      Caseins, biological studies  
          RL: FFD (Food or feed use); PEP (Physical, engineering or chemical  
          process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological  
          study); PROC (Process); USES (Uses)  
          (acid; easily water-dispersible powders and tablets containing sugar- or  
          protein-coated sterols manufactured by drying emulsions)  
IT      Coating process  
          Drying  
          Food

Powders  
Tablets  
(easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Carbohydrates, biological studies  
Gelatins, biological studies  
Lactalbumins  
Sterols  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Emulsions  
(oil-in-water; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Sterols  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(phyto-; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Drug delivery systems  
(powders; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Caseins, biological studies  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(sodium complexes, Instan-Rac S; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Proteins  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(soybean; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Drug delivery systems  
(tablets; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Proteins  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(wheat; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT Proteins  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(whey; easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

IT 57-87-4, Ergosterol 83-46-5,  $\beta$ -Sitosterol 83-48-7, Stigmasterol 474-62-4, Campesterol 474-67-9, Brassicasterol 9000-01-5, Arabic Cool SS 9057-02-7, Pullulan 11138-66-2, Xanthan gum 52906-93-1, Purity Gum BE  
RL: FFD (Food or feed use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(easily water-dispersible powders and tablets containing sugar- or protein-coated sterols manufactured by drying emulsions)

ALL ANSWERS HAVE BEEN SCANNED

=> s coating with (hexane and ethanol)  
AND IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s ethanol or "ethyl alcohol"  
277138 ETHANOL  
1140 ETHANOLS  
277694 ETHANOL  
(ETHANOL OR ETHANOLS)  
475605 "ETHYL"  
28 "ETHYLS"  
475627 "ETHYL"  
( "ETHYL" OR "ETHYLS")  
660218 "ET"  
8064 "ETS"  
666708 "ET"  
( "ET" OR "ETS")  
1000796 "ETHYL"  
( "ETHYL" OR "ET")  
266615 "ALCOHOL"  
174802 "ALCOHOLS"  
408386 "ALCOHOL"  
( "ALCOHOL" OR "ALCOHOLS")  
594250 "ALC"  
195547 "ALCS"  
693654 "ALC"  
( "ALC" OR "ALCS")  
853772 "ALCOHOL"  
( "ALCOHOL" OR "ALC")  
36246 "ETHYL ALCOHOL"  
( "ETHYL" (W) "ALCOHOL")  
L4 306906 ETHANOL OR "ETHYL ALCOHOL"

=> s hexane and L4  
AND IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s hexane and L4  
114347 HEXANE  
2013 HEXANES  
115501 HEXANE  
(HEXANE OR HEXANES)  
L5 9915 HEXANE AND L4

=> S coating with L5  
MISSING OPERATOR WITH L5  
The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> s coating near L5  
MISSING OPERATOR NEAR L5  
The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> s L5 with coating  
MISSING OPERATOR L5 WITH  
The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> d his

(FILE 'HOME' ENTERED AT 09:42:06 ON 08 AUG 2007)

FILE 'CAPLUS' ENTERED AT 09:42:16 ON 08 AUG 2007

L1 3 S COATING WITH STEROL  
L2 3 S COATED WITH STEROL  
L3 1 S L1 AND L2  
L4 306906 S ETHANOL OR "ETHYL ALCOHOL"  
L5 9915 S HEXANE AND L4

=> S L5 and sterol

25171 STEROL  
24579 STEROLS  
36705 STEROL  
(STEROL OR STEROLS)

L6 82 L5 AND STEROL

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	22.79	23.00

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 09:48:15 ON 08 AUG 2007

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LOGINID:SSPTAALF1616

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'CAPLUS' AT 09:49:02 ON 08 AUG 2007  
FILE 'CAPLUS' ENTERED AT 09:49:02 ON 08 AUG 2007  
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	22.79	23.00

=> s (coating or coated) (W) sterol

802861 COATING  
373955 COATINGS  
865186 COATING  
(COATING OR COATINGS)  
517806 COATED  
2 COATEDS  
517808 COATED  
(COATED OR COATEDS)  
25171 STEROL  
24579 STEROLS  
36705 STEROL  
(STEROL OR STEROLS)

L7 1 (COATING OR COATED) (W) STEROL

=> S (coating or coated) (W) (hexane? and (ethanol or ethyl alcohol))

PROXIMITY OPERATION NOT ALLOWED

Certain operators may not be nested in combination with other operators. A nested operator is valid only when it occurs at the same level or above the operator outside the nested phrase as determined by

the following precedence list:

1. Numeric
2. (W), (NOTW), (A), (NOTA)
3. (S), (NOTS)
4. (P), (NOTP)
5. (L), (NOTL)
6. AND, NOT
7. OR

For example, '(MONOCLONAL(W)ANTIBOD?)(L)ANTIGEN?' is valid since (W) is above (L) on the precedence list. However, '((THIN(W)LAYER)(L)PHOSPHOLIPID#)(A)LACTONE#' is not valid since (L) is below (A) on the precedence list. The only exception is the 'OR' operator. This operator may be used in combination with any other operator. For example, '(ATOMIC OR NUCLEAR)(W)REACTOR' is valid.

```
=> s ethanol or ethyl alcohol
    277138 ETHANOL
      1140 ETHANOLS
    277694 ETHANOL
          (ETHANOL OR ETHANOLS)
    475605 ETHYL
      28 ETHYLS
    475627 ETHYL
          (ETHYL OR ETHYLS)
    660218 ET
      8064 ETS
    666708 ET
          (ET OR ETS)
    1000796 ETHYL
          (ETHYL OR ET)
    266615 ALCOHOL
    174802 ALCOHOLS
    408386 ALCOHOL
          (ALCOHOL OR ALCOHOLS)
    594250 ALC
    195547 ALCS
    693654 ALC
          (ALC OR ALCS)
    853772 ALCOHOL
          (ALCOHOL OR ALC)
      36246 ETHYL ALCOHOL
          (ETHYL(W)ALCOHOL)
L8      306906 ETHANOL OR ETHYL ALCOHOL
```

```
=> s L8 (W) hexane?
    157618 HEXANE?
L9      240 L8 (W) HEXANE?
```

```
=> S (coating or coated) (W) L9
    802861 COATING
    373955 COATINGS
    865186 COATING
          (COATING OR COATINGS)
    517806 COATED
      2 COATEDS
    517808 COATED
          (COATED OR COATEDS)
L10      0 (COATING OR COATED) (W) L9
```

```
=> d his
```

(FILE 'HOME' ENTERED AT 09:42:06 ON 08 AUG 2007)

FILE 'CAPLUS' ENTERED AT 09:42:16 ON 08 AUG 2007

L1 3 S COATING WITH STEROL  
L2 3 S COATED WITH STEROL  
L3 1 S L1 AND L2  
L4 306906 S ETHANOL OR "ETHYL ALCOHOL"  
L5 9915 S HEXANE AND L4  
L6 82 S L5 AND STEROL  
L7 1 S (COATING OR COATED) (W) STEROL  
L8 306906 S ETHANOL OR ETHYL ALCOHOL  
L9 240 S L8 (W) HEXANE?  
L10 0 S (COATING OR COATED) (W) L9

=> S L6 and PY<2006

26197270 PY<2006

L11 73 L6 AND PY<2006

=> d scan

L11 73 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN  
IC ICM C07D311-72  
CC 45-3 (Industrial Organic Chemicals, Leather, Fats, and Waxes)  
TI Extraction of high-content tocopherol from byproduct of vegetable oil  
refination  
ST tocopherol sterol purifn esterification vegetable oil extn  
IT Esterification  
Extraction  
(extraction of high-content tocopherol from byproduct of vegetable oil  
refination)  
IT Silica gel, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(extraction of high-content tocopherol from byproduct of vegetable oil  
refination)  
IT Sterols  
RL: PUR (Purification or recovery); PREP (Preparation)  
(extraction of high-content tocopherol from byproduct of vegetable oil  
refination)  
IT Tocopherols  
RL: PUR (Purification or recovery); PREP (Preparation)  
(extraction of high-content tocopherol from byproduct of vegetable oil  
refination)  
IT Fats and Glyceridic oils, miscellaneous  
RL: MSC (Miscellaneous)  
(vegetable; extraction of high-content tocopherol from byproduct of  
vegetable oil refination)  
IT 1344-28-1, Aluminum oxide, uses 7440-44-0, Carbon, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(activated; extraction of high-content tocopherol from byproduct of  
vegetable oil refination)  
IT 64-17-5, Ethanol, uses 64-18-6, Formic acid, uses 64-19-7,  
Acetic acid, uses 67-56-1, Methanol, uses 71-43-2, Benzene, uses  
79-09-4, Propionic acid, uses 110-54-3, n-Hexane, uses  
141-78-6, Ethyl acetate, uses 7681-38-1, Sodium hydrogensulfate  
RL: NUU (Other use, unclassified); USES (Uses)  
(extraction of high-content tocopherol from byproduct of vegetable oil  
refination)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L11 73 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN  
CC 9-3 (Biochemical Methods)  
Section cross-reference(s): 6, 13  
TI Improved procedure for the separation of major stratum corneum lipids by  
means of automated multiple development thin-layer chromatography  
ST lipid skin stratum corneum thin layer chromatog  
IT Sterols

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(esters; separation of major stratum corneum lipids by means of automated multiple development thin-layer chromatog.)

IT TLC (thin layer chromatography)

(high-performance; separation of major stratum corneum lipids by means of automated multiple development thin-layer chromatog.)

IT Human

(separation of major stratum corneum lipids by means of automated multiple development thin-layer chromatog.)

IT Ceramides

Fatty acids, analysis

Glycerides, analysis

Lipids, analysis

Waxes

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(separation of major stratum corneum lipids by means of automated multiple development thin-layer chromatog.)

IT Skin

(stratum corneum; separation of major stratum corneum lipids by means of automated multiple development thin-layer chromatog.)

IT 57-10-3, Palmitic acid, analysis 57-88-5, Cholesterol, analysis

111-02-4, Squalene 303-43-5, Cholesteryl oleate 1256-86-6,

Cholesterol-3-sulfate

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)

(separation of major stratum corneum lipids by means of automated multiple development thin-layer chromatog.)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L11 73 ANSWERS CAPLUS COPYRIGHT 2007 ACS on STN

IC ICM C11B001-02

ICS A23K001-14; C08B003-00; C08B011-00; C08B037-14; C13K013-00;  
D21C005-00; C12S003-00

CC 17-12 (Food and Feed Chemistry)

Section cross-reference(s): 11

TI Corn fiber for the production of advanced chemicals and materials

ST corn fiber sterol cellulose arabinoxylan deriv monosaccharide

IT Extractants

Feed

(corn fiber for production of advanced chems. and materials)

IT Corn oil

RL: FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)

(corn fiber for production of advanced chems. and materials)

IT Monosaccharides

Sterols

RL: PUR (Purification or recovery); PREP (Preparation)

(corn fiber for production of advanced chems. and materials)

IT Sterols

RL: PUR (Purification or recovery); PREP (Preparation)

(esters; corn fiber for production of advanced chems. and materials)

IT Corn

(fiber; corn fiber for production of advanced chems. and materials)

IT Solvents

(organic; corn fiber for production of advanced chems. and materials)

IT 74-83-9, Methyl bromide, uses 74-87-3, Methyl chloride, uses 74-88-4,

Methyl iodide, uses 74-96-4, Ethyl bromide 75-21-8, Oxirane, uses

75-56-9, uses 79-11-8, Chloroacetic acid, uses 96-09-3, Styrene oxide

96-34-4, Chloroacetic acid, methyl ester 100-39-0, Benzyl bromide

105-39-5, Chloroacetic acid, ethyl ester 106-89-8, uses 106-94-5,

Propyl bromide 109-65-9, Butyl bromide 556-52-5, Glycidol 930-22-3

1912-31-8 3926-62-3, Sodium chloroacetate 26249-20-7, Butylene oxide



51109-21-8

RL: NUU (Other use, unclassified); USES (Uses)

(O-alkylating agent; corn fiber for production of advanced chems. and materials)

IT 689-98-5D, 1-Amino-2-chloroethane, N,N-dialkyl derivs.

RL: NUU (Other use, unclassified); USES (Uses)

(O-alkylating agents; corn fiber for production of advanced chems. and materials)

IT 75-75-2, Methanesulfonic acid 407-25-0, Trifluoroacetic anhydride  
7664-93-9, Sulfuric acid, uses

RL: NUU (Other use, unclassified); USES (Uses)

(catalyst; corn fiber for production of advanced chems. and materials)

IT 9000-92-4, Amylase 9001-92-7, Protease 37278-89-0, Xylanase

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(corn fiber for production of advanced chems. and materials)

IT 9040-27-1P, Arabinoxylan

RL: PUR (Purification or recovery); PREP (Preparation)

(corn fiber for production of advanced chems. and materials)

IT 9004-34-6P, Cellulose, preparation

RL: PUR (Purification or recovery); RCT (Reactant); PREP (Preparation);  
RACT (Reactant or reagent)

(corn fiber for production of advanced chems. and materials)

IT 9004-34-6DP, Cellulose, esters, preparation 9004-34-6DP, Cellulose,  
ethers, preparation 9004-35-7P, Cellulose acetate 9004-36-8P,

Cellulose acetate butyrate 9004-39-1P, Cellulose acetate propionate

9004-48-2P, Cellulose propionate 9015-12-7P, Cellulose butyrate

9036-95-7P, Cellulose formate 9040-27-1DP, Arabinoxylan, esters

9040-27-1DP, Arabinoxylan, ethers 103938-35-8P, Cellulose formate

acetate 103938-39-2P, Cellulose formate propionate 288395-61-9P,

Cellulose formate butyrate 288395-62-0P, Arabinoxylan formate

288395-63-1P, Arabinoxylan acetate 288395-64-2P, Arabinoxylan propionate

288395-65-3P, Arabinoxylan butyrate 288395-66-4P, Arabinoxylan formate

acetate 288395-67-5P, Arabinoxylan formate propionate 288395-68-6P,

Arabinoxylan formate butyrate 288395-69-7P, Arabinoxylan acetate

propionate 288395-70-0P, Arabinoxylan acetate butyrate

RL: SPN (Synthetic preparation); PREP (Preparation)

(corn fiber for production of advanced chems. and materials)

IT 471-34-1, Calcium carbonate, uses 497-19-8, Sodium carbonate, uses

584-08-7, Potassium carbonate 1305-62-0, Calcium hydroxide, uses

1310-58-3, Potassium hydroxide, uses 1310-65-2, Lithium hydroxide

1310-73-2, Sodium hydroxide, uses 1336-21-6, Ammonium hydroxide

RL: NUU (Other use, unclassified); USES (Uses)

(extractant; corn fiber for production of advanced chems. and materials)

IT 60-29-7, Diethyl ether, uses 64-17-5, Ethanol, uses 67-63-0,

Isopropyl alcohol, uses 67-64-1, Acetone, uses 71-36-3, Butyl alcohol,

uses 78-93-3, Methyl ethyl ketone, uses 108-10-1 110-54-3,

Hexane, uses 141-78-6, Acetic acid ethyl ester, uses 142-82-5,

Heptane, uses

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; corn fiber for production of advanced chems. and materials)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d his

(FILE 'HOME' ENTERED AT 09:42:06 ON 08 AUG 2007)

FILE 'CAPLUS' ENTERED AT 09:42:16 ON 08 AUG 2007

L1 3 S COATING WITH STEROL

L2 3 S COATED WITH STEROL

L3 1 S L1 AND L2

L4 306906 S ETHANOL OR "ETHYL ALCOHOL"

L5 9915 S HEXANE AND L4

L6 82 S L5 AND STEROL

```
L7          1 S (COATING OR COATED) (W) STEROL
L8          306906 S ETHANOL OR ETHYL ALCOHOL
L9          240 S L8 (W) HEXANE?
L10         0 S (COATING OR COATED) (W) L9
L11         73 S L6 AND PY<2006
```

=> L6 and PY<2004

L6 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s L6 and PY<2004

23927540 PY<2004

L12 56 L6 AND PY<2004

=> d scan

```
L12  56 ANSWERS  CAPLUS  COPYRIGHT 2007 ACS on STN
CC   17-7 (Food and Feed Chemistry)
TI   Cholesterol content in chicken meat and chicken products
ST   chicken meat product cholesterol content
IT   Meat
      (chicken, liver; cholesterol content in chicken meat and meat products)
IT   Meat
      (chicken; cholesterol content in chicken meat and meat products)
IT   Animal tissue
      (cholesterol content in chicken meat and meat products)
IT   Meat
      (ham; cholesterol content in chicken meat and meat products)
IT   Meat
      (sausage, bologna; cholesterol content in chicken meat and meat
      products)
IT   Meat
      (sausage; cholesterol content in chicken meat and meat products)
IT   57-88-5, Cholesterol, biological studies  83-48-7, Stigmasterol
      RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
      BIOL (Biological study); OCCU (Occurrence)
      (cholesterol content in chicken meat and meat products)
```

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> d his

(FILE 'HOME' ENTERED AT 09:42:06 ON 08 AUG 2007)

FILE 'CAPLUS' ENTERED AT 09:42:16 ON 08 AUG 2007

```
L1          3 S COATING WITH STEROL
L2          3 S COATED WITH STEROL
L3          1 S L1 AND L2
L4          306906 S ETHANOL OR "ETHYL ALCOHOL"
L5          9915 S HEXANE AND L4
L6          82 S L5 AND STEROL
L7          1 S (COATING OR COATED) (W) STEROL
L8          306906 S ETHANOL OR ETHYL ALCOHOL
L9          240 S L8 (W) HEXANE?
L10         0 S (COATING OR COATED) (W) L9
L11         73 S L6 AND PY<2006
L12         56 S L6 AND PY<2004
```

=> L12 not cholesterol

L12 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s L12 not chlolesterol  
18 CHLOLESTEROL  
L13 56 L12 NOT CHLOLESTEROL

=> s L13 and stigmasterol or sitosterol or campesterol or brassicasterol or sitostanol or casterol

6498 STIGMASTEROL  
22 STIGMASTEROLS  
6507 STIGMASTEROL  
(STIGMASTEROL OR STIGMASTEROLS)  
14269 SITOSTEROL  
1112 SITOSTEROLS  
14613 SITOSTEROL  
(SITOSTEROL OR SITOSTEROLS)  
4029 CAMPESTEROL  
3 CAMPESTEROLS  
4030 CAMPESTEROL  
(CAMPESTEROL OR CAMPESTEROLS)  
965 BRASSICASTEROL  
2 BRASSICASTEROLS  
965 BRASSICASTEROL  
(BRASSICASTEROL OR BRASSICASTEROLS)  
687 SITOSTANOL  
1 SITOSTANOLS  
688 SITOSTANOL  
(SITOSTANOL OR SITOSTANOLS)  
9 CASTEROL  
L14 15611 L13 AND STIGMASTEROL OR SITOSTEROL OR CAMPESTEROL OR BRASSICASTE  
ROL OR SITOSTANOL OR CASTEROL

=> s L13 and (stigmasterol or sitosterol or campesterol or ?casterol or sitostanol)

6498 STIGMASTEROL  
22 STIGMASTEROLS  
6507 STIGMASTEROL  
(STIGMASTEROL OR STIGMASTEROLS)  
14269 SITOSTEROL  
1112 SITOSTEROLS  
14613 SITOSTEROL  
(SITOSTEROL OR SITOSTEROLS)  
4029 CAMPESTEROL  
3 CAMPESTEROLS  
4030 CAMPESTEROL  
(CAMPESTEROL OR CAMPESTEROLS)  
1057 ?CASTEROL  
687 SITOSTANOL  
1 SITOSTANOLS  
688 SITOSTANOL  
(SITOSTANOL OR SITOSTANOLS)  
L15 19 L13 AND (STIGMASTEROL OR SITOSTEROL OR CAMPESTEROL OR ?CASTEROL  
OR SITOSTANOL)

=> d L15 1-19 abs ibib

L15 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB The process for recovery of plant sterols and tocopherols from deodorization distillates formed during chemical or phys. refining of vegetable oils consists of the following steps: free fatty acids are removed from the deodorization distillate by vacuum distillation or by continuation solvent saponification, after the removal of free fatty acids, the received material is reacted with an aromatic carboxylic acid anhydride at a temperature of 50-150° C, under reduced pressure, after the treatment with anhydride, tocopherols are removed from the mixture, and crystalline free sterols are recovered from the distillation residue containing sterol esters, di- and triglycerides by transesterification.

ACCESSION NUMBER: 2004:2987 CAPLUS  
 DOCUMENT NUMBER: 140:58755  
 TITLE: Process for recovery of plant sterols from  
 by-product of vegetable oil refining  
 INVENTOR(S): Czuppon, Tibor; Kemeny, Zsolt; Kovari, Endrene;  
 Recseg, Katalin  
 PATENT ASSIGNEE(S): Cereol Noevenyolajipari Rt., Hung.  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000979	A1	20031231	WO 2002-HU62	20020702 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
HU 200202024	A2	20040329	HU 2002-2024	20020619
CA 2501963	A1	20031231	CA 2002-2501963	20020702 <--
AU 2002321664	A1	20040106	AU 2002-321664	20020702
BR 2002015782	A	20050301	BR 2002-15782	20020702
EP 1520003	A1	20050406	EP 2002-755376	20020702
EP 1520003	B1	20070425		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005530018	T	20051006	JP 2004-515075	20020702
CN 1732251	A	20060208	CN 2002-829395	20020702
MX 2004PA12787	A	20050920	MX 2004-PA12787	20041216
IN 2005DN00164	A	20060609	IN 2005-DN164	20050117
US 2006135794	A1	20060622	US 2005-519769	20050624
PRIORITY APPLN. INFO.:			HU 2002-2024	A 20020619
			WO 2002-HU62	W 20020702
REFERENCE COUNT:	4	THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L15 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN  
 AB The present invention relates to the use of "green" or relatively benign  
 solvents such as ethanol, ethanol/water, iso-Pr alc.,  
 iso-Pr alc./water, Et lactate, acetone, butanol, isoamyl alc., or Et  
 acetate to extract phytosterols from wet corn fiber. The resulting oil  
 product contains free phytosterols and free fatty acids.

ACCESSION NUMBER: 2003:1007616 CAPLUS  
 DOCUMENT NUMBER: 140:31423  
 TITLE: Extraction of phytosterols from corn fiber using  
 "green" solvents  
 INVENTOR(S): Abbas, Charles; Rammelsberg, Anne M.; Beery, Kyle  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 10 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2003235633      A1      20031225      US 2003-392926      20030321 <--  
PRIORITY APPLN. INFO.:      US 2002-365816P      P 20020321

L15 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB There are many reports on biol. activities of pentacyclic triterpenoids, which could be relevant to the pharmacol. effects including anti-inflammatory properties. Dandelion (*Taraxacum officinale* Wiggers et Weber, Asteraceae) is one of the best known European medicinal plants, rich in triterpenoids, which was used for the treatment of various inflammatory diseases such as rheumatoid arthritis and also for many infectious disorders. The aim of this work was to investigate the supercrit. fluid extraction (SFE) of dandelion crude drugs (*Taraxaci radix* and *T. folium*) with carbon dioxide, to study the extraction of triterpenoids and phytosterols and to compare supercrit. CO<sub>2</sub> extracted products and exts. made by traditional solvent extns. (n-hexane and ethanol 96%). Solvent extns. were carried out using a Soxhlet extractor. To define the effect of temperature and pressure on the yield of supercrit. fluid extraction, a 2 factorial 3 level experiment chain was performed. The content

of

triterpenes and phytosterols was determined, after saponification, by thin layer chromatog.-densitometry. The products gained by SFE were different from the traditional ones concerning their apparency and composition; triterpenes and their esters could be extracted quant. by supercrit. fluid extraction using CO<sub>2</sub>

as solvent; the extraction dynamic for  $\beta$ -amyrin and  $\beta$ -sitosterol was different; triterpenes have a higher concentration in the SFE product then in traditional ones. By means of supercrit. fluid extraction of *Taraxacum* crude drugs, in function of the selectivity of the solvent, temperature, pressure and accompanying constituents, qual. new products can be gained. These may serve as prospective raw materials for phytopharmaceuticals.

ACCESSION NUMBER: 2003:306986 CAPLUS  
DOCUMENT NUMBER: 139:341514  
TITLE: Production and characterization of *Taraxacum officinale* extracts prepared by supercritical fluid and solvent extractions  
AUTHOR(S): Kristo, T. Sz.; Szoke, E.; Kery, A.; Terdy, P. P.; Selmeczi, L. K.; Simandi, B.  
CORPORATE SOURCE: Department of Pharmacognosy, Semmelweis University, Budapest, H-1085, Hung.  
SOURCE: Acta Horticulturae (2003), 597(Proceedings of the International Conference on Medicinal and Aromatic Plants, Part II, 2001), 57-61  
CODEN: AHORA2; ISSN: 0567-7572  
PUBLISHER: International Society for Horticultural Science  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB The chemical composition of six lipophilic extractives from wheat straw by extraction with toluene-ethanol (2:1, volume/volume), chloroform-methanol (2:1, volume/volume), Me tert-Bu ether, hexane, petroleum ether, and dichloromethane, resp., in a Soxhlet extractor, and one water-soluble lipophilic extract has been examined. Five main lipid classes (free fatty/resin acids, sterols, waxes, steryl esters, triglycerides) were identified and their individual components quantified by gas chromatog. as their trimethylsilyl (TMS) esters (free fatty/resin acids) and TMS ethers (sterols). The abundant saturated fatty acids were palmitic acid (C16:0), myristic acid (C14:0), and pentadecanoic acid (C15:0). Palmitoleic acid (C16:1), linoleic acid (C18:2), and oleic acid (C18:1)

were the major unsatd. free fatty acids. Abietic acid was detected as the only single component in the resin acids. Of the sterols identified,  $\beta$ -sitosterol was found to be the major compound together with minor amts. of cholesterol, ergosterol, stigmasterol, and stigmastanol. Palmityl palmitate and oleyl palmitate were identified as the major components in waxes. The steryl esters analyzed were composed of steryl laurate, steryl myristate, steryl palmitate, steryl heptadecanoate, and steryl oleate. Tripalmitin, dipalmitoyl-oleoylglycerol, and triolein were the major components of the triglycerides.

ACCESSION NUMBER: 2003:233232 CAPLUS  
DOCUMENT NUMBER: 139:210794  
TITLE: Comparative study of organic solvent and water-soluble lipophilic extractives from wheat straw: I. Yield and chemical composition  
AUTHOR(S): Sun, Run Cang; Tomkinson, Jeremy  
CORPORATE SOURCE: The BioComposites Centre, University of Wales, Bangor, LL57 2UW, UK  
SOURCE: Journal of Wood Science (2003), 49(1), 47-52  
CODEN: JWSCFG; ISSN: 1435-0211  
PUBLISHER: Springer-Verlag Tokyo  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB A crude ethanol extract and hexane fraction from *Morinda citrifolia* Linn. (Rubiaceae) show antitubercular activity. The major constituents of the hexane fraction are E-phytol, cycloartenol, stigmasterol,  $\beta$ -sitosterol, campesta-5,7,22-trien-3 $\beta$ -ol and the ketosteroids stigmasta-4-en-3-one and stigmasta-4-22-dien-3-one. E-Phytol, a mixture of the two ketosteroids, and the epidioxysterol derived from campesta-5,7,22trien-3 $\beta$ -ol all show pronounced antitubercular activity.

ACCESSION NUMBER: 2002:956419 CAPLUS  
DOCUMENT NUMBER: 138:242976  
TITLE: Antitubercular constituents from the hexane fraction of *Morinda citrifolia* Linn. (Rubiaceae)  
AUTHOR(S): Saludes, Jonel P.; Garson, Mary J.; Franzblau, Scott G.; Aguinaldo, Alicia M.  
CORPORATE SOURCE: Research Center for the Natural Sciences, University of Santo Tomas, Manila, 1008, Philippines  
SOURCE: Phytotherapy Research (2002), 16(7), 683-685  
CODEN: PHYREH; ISSN: 0951-418X  
PUBLISHER: John Wiley & Sons Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB A method for the simultaneous anal. of tocopherols and sterols was developed. Lipids were extracted with the Folch method, saponified by KOH-ethanol, and then tocopherols, cholesterol, and phytosterols were extracted with hexane. The extracted samples were dried under a nitrogen stream, derivatized using trimethylsilyl compds., and then subjected to a gas chromatog. The recovery rates for cholesterol, stigmasterol, and sitosterol were about 100%, but recovery rates for tocopherols were low (25% for  $\delta$ -tocopherol and 66% for  $\gamma$ -tocopherol) and varied according to compound structures. However, the recovery rates for  $\delta$ - and  $\gamma$ -tocopherols increased to about 100% when the amts. of water and hexane were increased to 15 mL at the extraction step after saponification

ACCESSION NUMBER: 2002:589433 CAPLUS

DOCUMENT NUMBER: 137:200433  
 TITLE: Simultaneous analysis of tocopherols, cholesterol, and phytosterols using gas chromatography  
 AUTHOR(S): Du, M.; Ahn, D. U.  
 CORPORATE SOURCE: Dept. of Animal Science, Iowa State Univ., Ames, IA, 50011-3150, USA  
 SOURCE: Journal of Food Science (2002), 67(5), 1696-1700  
 CODEN: JFDSAZ; ISSN: 0022-1147  
 PUBLISHER: Institute of Food Technologists  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB This invention relates to a process for the preparation of tocopherol concs. from a material containing tocopherols and free fatty acids. The free fatty acids in the tocopherol-containing material are converted to the alkali metal salts thereof in a specific organic solvent that can not, practically, dissolve the alkali metal salts of fatty acids. The free fatty acids are removed as a precipitate of their alkali salts, and the tocopherols are recovered from the supernatant by removing the solvent. The said specific organic solvents include acetone, Et acetate, DMF, acetonitrile and their mixts. The alkali salts are preferably sodium and potassium salts. For example, 20 g of soybean oil deodorizer sludge (acid value = 118; saponification value = 147; tocopherol content = 18.19%) was dissolved in 100 mL acetone, 1.52 g NaOH (0.9 equiv of the free fatty acid) dissolved in water was added and the precipitate was removed by centrifugation. The supernatant was collected and the solvent was removed to obtain 8.02 g (yield of 40.1%) of brown oil. The result of chromatog. anal. showed the tocopherol content of 43.06% (recovery = 94.93%) and the phytosterol content of 11.76%. The saponification value of this product was 82.38, which is corresponding to about 43.36% of free fatty acids.

ACCESSION NUMBER: 2002:502846 CAPLUS  
 DOCUMENT NUMBER: 137:62496  
 TITLE: Process for preparing tocopherol concentrates  
 INVENTOR(S): Lee, Min-Hsiung  
 PATENT ASSIGNEE(S): National Science Council, Taiwan  
 SOURCE: U.S., 8 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6414166	B1	20020702	US 1999-474792	19991229 <--
PRIORITY APPLN. INFO.:			US 1999-474792	19991229
REFERENCE COUNT:	9	THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L15 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB The solubility of purified phytosterol, which was separated from deodorizer distillate by esterification, crystallization and recrystn. technique, was studied in several organic solvents. The characteristics of crystallization and separation of crude phytosterol in those organic solvents were also discussed. The exptl. results provided elemental chemical engineering parameters for the selection of suitable solvents such as n-propanol, n-butanol, n-pentanol, acetone and cyclohexanone in the development and scale-up the process for

recrystn. purification of crude phytosterol.

ACCESSION NUMBER: 2002:439937 CAPLUS  
DOCUMENT NUMBER: 138:23937  
TITLE: Studies on the selection of solvents for the  
recrystallization and purification of phytosterol  
AUTHOR(S): Xu, Wenlin; Wang, Yaqiong; Huang, Yibo; Lu, Ping  
CORPORATE SOURCE: Dept of Chem and Chem Eng, Coll of Sci, Yangzhou Univ,  
Yangzhou, 225002, Peop. Rep. China  
SOURCE: Yangzhou Daxue Xuebao, Ziran Kexueban (2002  
, 5(1), 58-61, 70  
CODEN: YDXKFT; ISSN: 1007-824X  
PUBLISHER: Yangzhou Daxue Xuebao Bianjibu  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

L15 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB Efficiency of supercrit. fluid extraction for the production of non-volatile  
terpenoids from Taraxaci radix Supercrit. fluid extraction (SFE) is an  
extraction

technique which exploits the solvent properties of fluids above their  
critical point. As a result supercrit. fluid extraction was used to gain

various

active substances from plants. The use of SFE to obtain bioactive  
substances from medicinal plants over the past twenty years has been  
proved to be a viable alternative for the extraction of natural compds.  
Dandelion (Taraxacum officinale Wiggers et Webers, Asteraceae) is one of  
the best known European medicinal plants, not only as a traditional  
medicine but perspective raw material for modern phyto pharmaceuticals.  
From the characteristic principles our attention has been directed to  
triterpenes and phytosterols with anti-inflammatory activity, which were  
extracted with supercrit. carbon dioxide. Designed expts. were carried out to  
determine the optimal extraction parameters. The products obtained by

supercrit.

fluid extraction were compared to exts. prepared by traditional extraction  
method

(Soxhlet) with n-hexane and Et alc.

solvents. The content of triterpenes and sterols was monitored  
after saponification by thin layer chromatog.-densitometry. The products

gained

by supercrit. fluid extraction were different from the traditional ones both in  
their appearance and composition Triterpenes and their esters were extracted  
quant. by supercrit. fluid extraction using CO<sub>2</sub> as solvent and the extraction  
dynamic for triterpenes and phytosterols was different. Triterpenes had a  
higher concentration in the SFE product than in the exts. prepared by

traditional

methods.

ACCESSION NUMBER: 2002:269318 CAPLUS  
DOCUMENT NUMBER: 137:357958  
TITLE: Efficiency of supercritical fluid extraction for the  
production of non-volatile terpenoids from Taraxaci  
radix  
AUTHOR(S): Kristo, Tita Szidonia; Terdy, Peter Pal; Simandi,  
Bela; Szoke, Eva; Lemberkovics, Eva; Kery, Agnes  
CORPORATE SOURCE: Farmakologiai Intezet, Semmelweis Egyetem,  
Gyogyszertudományi Kar, Budapest, 1085, Hung.  
SOURCE: Acta Pharmaceutica Hungarica (2001), 71(3),  
318-324  
CODEN: APHGAO; ISSN: 0001-6659  
PUBLISHER: Magyar Gyogyszereszeseti Tarsasag  
DOCUMENT TYPE: Journal  
LANGUAGE: Hungarian

L15 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB In vegetable oils, phytosterols occur as free sterols or as  
steryl esters. Few anal. methods report the quantification of esterified



and free sterols in vegetable oils. In this study, esterified and free sterols were separated by silica gel column chromatog. upon elution with n-hexane/ethyl acetate (90:10 vol/vol) followed by n-hexane/diethyl ether/ethanol (25:25:50 by vol). Both fractions were saponified sep. and the phytosterol content was quantified by GC. The anal. method for the anal. of esterified and free sterols had a relative standard deviation of 1.16% and an accuracy of 93.6-94.1%, which was comparable to the reference method for the total sterol anal. A large variation in the content and distribution of the sterol fraction between different vegetable oils can be observed. Corn and rapeseed oils were very rich in phytosterols, which mainly occurred as steryl esters (56-60%), whereas the majority of the other vegetable oils (soybean, sunflower, palm oil, etc.) contained a much lower esterified sterol content (25-40%). No difference in the relative proportion of the individual sterols among crude and refined vegetable oils was observed.

ACCESSION NUMBER: 2002:203494 CAPLUS  
DOCUMENT NUMBER: 136:308783  
TITLE: Analysis of free and esterified sterols in vegetable oils  
AUTHOR(S): Verleyen, T.; Forcades, M.; Verhe, R.; Dewettinck, K.; Huyghebaert, A.; De Greyt, W.  
CORPORATE SOURCE: Department of Organic Chemistry, Ghent, 9000, Belg.  
SOURCE: Journal of the American Oil Chemists' Society (2002), 79(2), 117-122  
CODEN: JAOCA7; ISSN: 0003-021X  
PUBLISHER: AOCS Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN  
AB Processes, (a) providing a sterol; (b) reacting the sterol with a source of SO<sub>3</sub>, whereby a sulfated sterol derivative is formed; (c) neutralizing the sulfated sterol derivative and precipitating the neutralized, sulfated sterol derivative; (d) contacting the derivative with a polar organic solvent and contacting the derivative with a non-polar organic solvent, in any order, for preparing high purity sulfated sterol derivs. in high yield, are disclosed. Thus, sterol mixture containing about 25-30% campesterol, 17-22% stigmasterol and 45-50% sitosterol was reacted with chlorosulfonic acid to afford sulfated sterol products.

ACCESSION NUMBER: 2000:881175 CAPLUS  
DOCUMENT NUMBER: 134:17622  
TITLE: Processes for the preparation of sulfated sterol derivatives  
INVENTOR(S): Milstein, Norman; Behler, Ansgar  
PATENT ASSIGNEE(S): Cognis Corp., USA  
SOURCE: PCT Int. Appl., 14 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000075165	A1	20001214	WO 2000-US15608	20000607 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,				

BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-137922P P 19990607  
US 2000-588771 A 20000606

OTHER SOURCE(S): CASREACT 134:17622

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB This document discloses a method for purifying 4-desmethylsterols from  
neutral substances containing the 4-desmethylsterols and undesired neutral  
components; said method comprises the step of treating the neutral  
substances with a solvent mixture comprising Me Et ketone, a C1-C6 alkanol  
and water.

ACCESSION NUMBER: 2000:772653 CAPLUS

DOCUMENT NUMBER: 133:307836

TITLE: Alkanol-methyl ethyl ketone-water solvent system for  
the separation of sterols

INVENTOR(S): Hamunen, Antti

PATENT ASSIGNEE(S): Sterol Technologies Ltd., Finland

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000064922	A1	20001102	WO 2000-IB539	20000427 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1291355	A1	20030312	EP 2001-660162	20010907 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
WO 2003022865	A1	20030320	WO 2002-FI718	20020906 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002321368	A1	20030324	AU 2002-321368	20020906 <--
US 2005010061	A1	20050113	US 2004-487937	20040901
US 7202372	B2	20070410		

PRIORITY APPLN. INFO.: US 1999-131305P P 19990427  
EP 2001-660162 A 20010907  
WO 2002-FI718 W 20020906

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB It was found that by the addition of 2 different, specific sterols,

which preferably are phytosterols, to a liquid fat, the liquid fat was no longer liquid, but showed a firmness, measured as Stevens hardness, significantly higher than that of the liquid fatty compound itself. Preferably, the liquid fat is an edible fat, and the sterols used is a mixture of phytosterols, preferably oryzanol and sitosterol at a min. total weight level of 2 %, preferably 4 %, with a clear optimum at a molar ratio between 3:1 and 1:3, further preferred between 1:2 and 2:1. The composition is preferably used in consumer goods, such as cosmetic products or food products. Also these products comprising such a composition are part of the invention. After dissoln. of the sterols in the fatty compound at elevated temperature, improvement of structuring capacity of the sterols was found by rapid cooling.

ACCESSION NUMBER: 1997:756970 CAPLUS  
DOCUMENT NUMBER: 128:34057  
TITLE: Liquid fatty component containing composition  
INVENTOR(S): Ritter, Heike; Van De Sande, Robert Leo K. M.; Muller, Volkmar  
PATENT ASSIGNEE(S): Unilever Plc, Neth.; Ritter, Heike; Van De Sande, Robert Leo K. M.; Muller, Volkmar; Unilever N.V.  
SOURCE: PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9742830	A1	19971120	WO 1997-EP2597	19970512 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2253855	A1	19971120	CA 1997-2253855	19970512 <--
CA 2253855	C	20030211		
AU 9730282	A	19971205	AU 1997-30282	19970512 <--
AU 767968	B2	20031127		
EP 918465	A1	19990602	EP 1997-924969	19970512 <--
EP 918465	B1	20050112		
R: BE, DE, DK, ES, FR, GB, NL, SE, IE, FI				
HU 9903960	A2	20000328	HU 1999-3960	19970512 <--
CZ 291214	B6	20030115	CZ 1998-3642	19970512 <--
PL 185952	B1	20030930	PL 1997-329763	19970512 <--
SK 284128	B6	20040908	SK 1998-1537	19970512
ES 2235233	T3	20050701	ES 1997-924969	19970512
ZA 9704119	A	19981113	ZA 1997-4119	19970513 <--
US 6846507	B1	20050125	US 1999-180374	19990412
PRIORITY APPLN. INFO.:			EP 1996-201303	A 19960510
			WO 1997-EP2597	W 19970512

L15 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB High cholesterol and saturated lipids intake has been linked to the development of coronary diseases, particularly atherosclerosis. In this study, samples of viscera and chicken meat, as well as manufactured chicken products were analyzed for their sterol content, specially cholesterol, to determine their nutritional quality and to contribute to the development of Venezuelan food composition tables. GC with flame ionization detector was used for the separation and quantification of cholesterol and phytosterols (stigmasterol) in chicken samples purchased on the market in Mar. and Nov. 1995. The method involved lipid extraction, direct saponification with KOH in ethanol, hexane extraction of the

unsaponifiable matter and its injection on the gas chromatog. packed column (SE-30 on Gas-Chrom Q 100-120 mesh). The average cholesterol values in mg/100 g wet sample weight were: 31.13 (manufactured chicken breast); 57.35 (ham-like chicken product); 69.02 (chicken sausages); 60.46 (chicken bologna). No phytosterols (of feed or vegetable origin) were detected, with the exception of a canned meat sample.

ACCESSION NUMBER: 1997:572702 CAPLUS  
DOCUMENT NUMBER: 127:160858  
TITLE: Cholesterol content in chicken meat and chicken products  
AUTHOR(S): Rincon, Alicia Mariela; Carrillo de Padilla, Fanny; Araujo de Vizcarrondo, Consuelo; Martin, Eduardo  
CORPORATE SOURCE: Fac. Farmacia, Univ. Central Venezuela, Caracas, 1041-A, Venez.  
SOURCE: Archivos Latinoamericanos de Nutricion (1997), 47(1), 81-84  
CODEN: ALANBH; ISSN: 0004-0622  
PUBLISHER: Sociedad Latinoamericana de Nutricion  
DOCUMENT TYPE: Journal  
LANGUAGE: Spanish  
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB Rice bran oil was prepared by extraction with hexane, supercrit. CO<sub>2</sub>, and supercrit. CO<sub>2</sub> plus 5% EtOH as cosolvent. Total sterol contents in the oil preps. were 9.35, 7.25, and 8.30 mg/g, resp. Campesterol contents were 2.75, 1.85, and 2.20 mg/g, resp. Stigmasterol contents were 1.75, 1.35, and 1.55 mg/g, resp.  $\beta$ - Sitosterol contents were 4.85, 4.05, and 4.55 mg/g, resp.

ACCESSION NUMBER: 1993:537908 CAPLUS  
DOCUMENT NUMBER: 119:137908  
TITLE: Rice bran oil extraction by supercritical carbon dioxide  
AUTHOR(S): Lei, Minggang  
CORPORATE SOURCE: Hunan Cereals Oils Sci. Res. Inst., Changsha, 410005, Peop. Rep. China  
SOURCE: Shipin Kexue (Beijing, China) (1993), 159, 43-5  
CODEN: SPKHD5; ISSN: 0253-8997  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

L15 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB The antitumor activity of the n-hexane, ethanol, and water exts. from the wood-rotting fungus *I. radiatus*, as well as of lupeol, lupenone, ergosterol, and ergosterol peroxide, were investigated in vitro against MCF-7 human mammary adenocarcinoma and Walker 256 carcinosarcoma. The water extract of the fungus was either inactive or only slightly active, whereas the constituents soluble in ethanol and n-hexane were moderately active. The neutral and acidic portions of the n-hexane extract killed 35-40% of the Walker 256 and 50-70% of the MCF-7 cells after 5 days at the greatest concentration of 50  $\mu$ g/mL. The acid fraction of the n-hexane extract was rich in fatty acids, whereas the ethanol and water exts. contained unknown constituents. The neutral portion of the n-hexane extract contained sterols and triterpenes, lupane, and  $\Delta$ 14-taraxerane derivs.,  $\Delta$ 5- and  $\Delta$ 7- sterols, and ergosterol peroxide. Lupeol and lupenone were inactive. The activity of the n-hexane extract is caused probably by ergosterol derivs. Ergosterol peroxide was active against both cell lines, inhibiting growth of these cancer cells and killing them 100%. Ergosterol was inactive against the Walker 256 cell line, but killed 70% of the MCF-7 cells.

ACCESSION NUMBER: 1989:587066 CAPLUS  
DOCUMENT NUMBER: 111:187066

TITLE: Antitumor activity of some extracts and compounds from  
Inonotus radiatus  
AUTHOR(S): Kahlos, K.; Hiltunen, R.; Kangas, L.  
CORPORATE SOURCE: Dep. Pharm., Univ. Helsinki, Helsinki, 00170, Finland  
SOURCE: Fitoterapia (1989), 60(2), 166-8  
CODEN: FTRPAE; ISSN: 0367-326X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L15 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB The synergistic antioxidant effects of d-tocopherols (d-Tocs) and extracted components from coffee beans on lard and palm oil were investigated by oven and AOM tests. The components were petroleum ether (PE) and ethanol (EtOH) exts. of dry and roasted beans, hexane-soluble and -insol. components of the EtOH extract and caffeic and chlorogenic acids. Tocs and sterols in different varieties of coffee beans were also analyzed. In coffee beans,  $\beta$ -,  $\alpha$ -, and  $\gamma$ -tocopherols were contained in approx. a 4:2:0.1 ratio, the total content being .apprx.5.5-6.9 mg/100 g. The predominance of  $\beta$ -tocopherol is a prominent feature of coffee beans, in contrast to other vegetables and fruits. On lard, the EtOH extract of coffee beans showed greater antioxidant effect than the PE extract; the effect of hexane-insol. components from roasted beans was particularly remarkable. The components also greatly enhanced the effect of a mixture of d-Tocs as their added amts. were increased. The effects on palm oil were essentially the same. Chlorogenic acid in coffee beans showed the same effects as the above components, but they were less pronounced than those of caffeic acid, the constituent moiety of chlorogenic acid. The content of this acid in hexane-insol. components from roasted beans was less than that from dry beans. Thus, the effects of the components may primarily be attributable to caffeic acid derivs. produced from chlorogenic acid by roasting.

ACCESSION NUMBER: 1988:589003 CAPLUS

DOCUMENT NUMBER: 109:189003

TITLE: Studies on the improvement of antioxidant effect of tocopherols. XVII. Synergistic effect of extracted components from coffee-beans

AUTHOR(S): Aoyama, Minoru; Maruyama, Takenori; Kanematsu, Hiromu; Niiya, Isao; Tsukamoto, Masato; Tokairin, Shigeru; Matsumoto, Taro

CORPORATE SOURCE: Japan Inst. Oils and Fats, Tokyo, Japan

SOURCE: Yukagaku (1988), 37(8), 606-12

CODEN: YK GKAM; ISSN: 0513-398X

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

L15 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB Existing methods for the identification of mammalian fecal particles in foods have not been completely satisfactory because visual identification of small particles is difficult. In addition, identification of feces by determining the presence of fecal alkaline phosphatase is limited to specimens in

which the enzyme has not been inactivated, and it does not work well with feces from herbivores. A new method has been developed which uses coprostanol as a fecal indicator. Coprostanol is a heat-stable sterol found in the feces of mammals and some birds. A hexane extract of the suspect particle is applied to the preadsorbent zone of a silica gel thin-layer chromatog. plate which has been impregnated with 5% phosphomolybdic acid in ethanol. The plate is developed in di-Et ether-heptane (55 + 45), heated, and examined visually for the presence of coprostanol. Amts. of rat feces as small as 0.15 mg and cow feces as small as 0.5 mg have been identified using this method.

ACCESSION NUMBER: 1987:476241 CAPLUS

DOCUMENT NUMBER: 107:76241

TITLE: Identification of mammalian feces by coprostanol thin

layer chromatography: method development  
AUTHOR(S): Hoskin, George P.; Bandler, Ruth  
CORPORATE SOURCE: Div. Microbiol., Food Drug Adm., Washington, DC,  
20204, USA  
SOURCE: Journal - Association of Official Analytical Chemists  
(1987), 70(3), 496-8  
CODEN: JANCA2; ISSN: 0004-5756  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L15 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

AB Pollen of walnut (*J. regia*) was 1st extracted with ether, whereby most of the free steroids were obtained. Then the sterol glycosides and esters in the pollen were extracted by acetone. The acetone exts. obtained were hydrolyzed with 1% H<sub>2</sub>SO<sub>4</sub> and then with 10% KOH. After that the hydrolyzate was extracted with n-hexane and ether. All exts. were combined and washed with 70% methanol to remove the impurities, then the extract was evaporated to dryness under vacuum. 3 $\beta$ -Hydroxysteroids were precipitated after adding a solution of 2% digitonin in 80% ethanol to the dry extract. The impurities, consisting mainly of pigments, were removed from the precipitate by centrifugation. The purified sterol compds. were allowed to react with bis(trimethylsilyl)acetamine and trimethylchlorosilane which converted the sterols into their resp. trimethylsilyl derivs. The derived sterols were analyzed by GC-MS. The pollen contained estradiol and stigmasterol.

ACCESSION NUMBER: 1987:30076 CAPLUS  
DOCUMENT NUMBER: 106:30076  
TITLE: Isolation and identification of some steroid hormones in the pollen of walnut (*Juglans regia*) by gas chromatography/mass spectrometry  
AUTHOR(S): Wang, Huanmin; Cao, Zongxun  
CORPORATE SOURCE: Dep. Biol., Beijing Univ., Beijing, Peop. Rep. China  
SOURCE: Zhiwu Shengli Xuebao (1986), 12(3), 218-23  
CODEN: CWSPDA; ISSN: 0257-4829  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-14.82	-14.82

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